



Multifaceted Approach: Improving Data Infrastructure

The Pacific Islands Fisheries Science Center's Fisheries Research and Monitoring Division developed a multifaceted approach to improving the data used in stock assessments of federal management unit species. The approach recognizes the complexities of territorial fisheries and associated data. Each facet of fisheries has unique challenges. Thus, the one-size-fits-all approach is not applicable. The multifaceted approach covers commercial and non-commercial fisheries using the creel surveys and self-reporting system, moving towards electronic reporting (ER) and using artificial intelligence (AI) in the data collection toolbox.

Commercial fisheries

Phase
01

SELLIT LOGIT TRANSITION

- Update to the Sellit Logit graphical user interface
- Replace physical servers with cloud database
- Migrate the historical commercial receipt book data



Commercial and non-commercial fisheries

Phase
02

CATCHIT LOGIT TRANSITION

- Transfer cloud database to PIFSC and territories
- Implement electronic self-reporting
- Supports mandatory and voluntary data collection



Commercial and non-commercial fisheries

Phase
03

CREEL TRANSITION TO ER

- Develop tablet application for data collection
- Create dashboards and other survey support tools
- Evaluate use of photo documentation

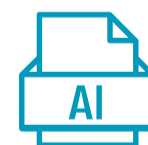


Non-commercial fisheries

Phase
04

IMAGE RECOGNITION AI

- Develop a phone app to capture images of catch
- Test image recognition AI to identify species, count fish, and estimate the length



Other FRMD Improvement Efforts

- Review of the creel survey expansion algorithm (complete)
- Review of the creel survey design (ongoing)
- Marine Recreational Information Program certification of the creel surveys (ongoing)
- Stock Assessment Data Workshops (Am. Samoa complete, Guam ongoing)
- Design-based life history biosampling (ongoing)

